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WHAT IS CLAIMED IS:

1. A personal handyphone system performing radio connection using a time division multiple access-time division duplex system comprising:

a mobile station including

5 means for performing carrier sensing of a communication frequency designated by a base station and a reception slot; and

means for performing carrier sensing of a transmission slot.

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2. A personal handyphone system as set forth in claim 1, wherein said mobile station further comprises:

5 means for initiating communication when non use is judged in both carrier sensing.

3. A personal handyphone system as set forth in claim 1, wherein said mobile station further comprises:

5 means for initiating communication when non use is judged in both carrier sensing,

in carrier sensing of said reception slot and carrier sensing of said transmission slot, setting of reception electric field level as judgment condition of non use is provided individually to perform carrier
10 sensing on the basis of each of said reception electric

field levels.

4. A personal handyphone system as set forth in claim 1, wherein said mobile station further comprises:

5 means for initiating communication when non use is judged in both carrier sensing;

setting means for modifying and setting said reception electric field level as non use judgment condition in carrier sensing,

10 said setting means setting said reception electric field level as non use judgment condition at an appropriate value corresponding to a reception electric field level of a control frequency and a control slot from said base station.

5. A personal handyphone system as set forth in claim 1, wherein said mobile station further comprises:

5 means for initiating communication when non use is judged in both carrier sensing;

setting means for modifying and setting said reception electric field level as non use judgment condition in carrier sensing,

10 in carrier sensing of said reception slot and carrier sensing of said transmission slot, setting of reception electric field level as judgment condition of

non use is provided individually to perform carrier sensing on the basis of each of said reception electric field levels,

5 setting means for modifying and setting said reception electric field level as non use judgment condition in carrier sensing,

20 said setting means setting said reception electric field level as non use judgment condition at an appropriate value corresponding to a reception electric field level of a control frequency and a control slot from said case station.

6. A carrier sensing method on a mobile station side of a personal handyphone system performing radio connection using a time division multiple access-time division duplex system comprising:

5 in said mobile station,

 performing carrier sensing of a communication frequency designated by a base station and a reception slot; and

10 performing carrier sensing of a transmission slot.

7. A carrier sensing method as set forth in claim 6, which further comprising the step of, in said mobile station,

 initiating communication when non use is

5 judged in both carrier sensing.

8. A carrier sensing method as set forth in claim 6, which further comprising the step of, in said mobile station,

5 initiating communication when non use is judged in both carrier sensing,

in carrier sensing of said reception slot and carrier sensing of said transmission slot, setting of reception electric field level as judgment condition of non use is provided individually to perform carrier
10 sensing on the basis of each of said reception electric field levels.

9. A carrier sensing method as set forth in claim 6, which further comprising the step of, in said mobile station, initiating communication when non use is judged in both carrier sensing;

5 modifying and setting said reception electric field level as non use judgment condition in carrier sensing,

setting said reception electric field level as non use judgment condition at an appropriate value
10 corresponding to a reception electric field level of a control frequency and a control slot from said case station.

10. A carrier sensing method as set forth in claim 6, which further comprising the step of, in said mobile station, initiating communication when non use is judged in both carrier sensing;

5 modifying and setting said reception electric field level as non use judgment condition in carrier sensing,

10 in carrier sensing of said reception slot and carrier sensing of said transmission slot, setting of reception electric field level as judgment condition of non use is provided individually to perform carrier sensing on the basis of each of said reception electric field levels,

15 modifying and setting said reception electric field level as non use judgment condition in carrier sensing,

20 setting said reception electric field level as non use judgment condition at an appropriate value corresponding to a reception electric field level of a control frequency and a control slot from said case station.

11. A mobile station of a personal handyphone system performing radio connection using a time division multiple access-time division duplex system comprising:

5 means for performing carrier sensing of a communication frequency designated by a base station and

a reception slot; and

means for performing carrier sensing of a transmission slot.

12. A mobile station as set forth in claim 11, which further comprises:

means for initiating communication when non use is judged in both carrier sensing.

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13. A mobile station as set forth in claim 11, which further comprises:

means for initiating communication when non use is judged in both carrier sensing,

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in carrier sensing of said reception slot and carrier sensing of said transmission slot, setting of reception electric field level as judgment condition of non use is provided individually to perform carrier sensing on the basis of each of said reception electric field levels.

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14. A mobile station as set forth in claim 11, which further comprises:

means for initiating communication when non use is judged in both carrier sensing;

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setting means for modifying and setting said reception electric field level as non use judgment condition in carrier sensing,

10 said setting means setting said reception
electric field level as non use judgment condition at an
appropriate value corresponding to a reception electric
field level of a control frequency and a control slot
from said case station.

15. A mobile station as set forth in claim 11,
which further comprises:

 means for initiating communication when non
use is judged in both carrier sensing;

5 setting means for modifying and setting said
reception electric field level as non use judgment
condition in carrier sensing,

 in carrier sensing of said reception slot and
carrier sensing of said transmission slot, setting of
10 reception electric field level as judgment condition of
non use is provided individually to perform carrier
sensing on the basis of each of said reception electric
field levels,

15 setting means for modifying and setting said
reception electric field level as non use judgment
condition in carrier sensing,

20 said setting means setting said reception
electric field level as non use judgment condition at an
appropriate value corresponding to a reception electric
field level of a control frequency and a control slot
from said case station.